Dr. Tetsu Nakayama National Institute of Health Shiba Shirokane-daimachi Minato-kw, Tokyo, Japan

Dear Dr. Nakayama:

I should have mentioned that Prof. Kikkawa already has received copies of Papers in Microbial Genetics. If you are in a hurray, perhaps you could consult his copy. This book carries a rather extensive bibliography of bacterial genetics literature, together with a textual commentary.

I am afraid that I cannot send you typescripts of the papers you requested. However, I do have a microfilm print of most of the Cold Spring Harbor Symposium paper. This volume is now in print, but I have not received any reprints as yet. The reference to our paper is: Lederberg, Lederberg, Zinder and Lively, Cold Spring Harbor Symposium Quant. Biol., 16:413-444, 1951. I regret that the Tables and Figures are not complete. The bibliography and the text may, however, be useful. You should have no difficulty reading the print with a binocular dissecting microscope.

Your question about the interaction in heterozygotes of V_1^r/V_1^p is very interesting. You will find a discussion of it on pp. 37-38 of the microfilm.

The instruction-circular has not been published, as such. The same details are given in the CSH paper (see micrifilm). The present technique is better because it avoids differential growth of recombinants. It is first mentioned in the denetics 1947 paper. Trace elements are no longer used in our media. We are now using the minimal medium described on p. 2 of the "Instructions". Under separate cover, I will send you other technical details.

Your list includes most of the literature on genetic recombination. You may wish to compare the bibliography of the microprint. The Kann thesis is unimportant (also available as Jour. Eacteriology 63:421-422 March 1952). The article by Tatum (1945) is simply a description of biochemical mutants of E. coli.

I regret that I did not understand your experiments of crossing Shigella. Do you have evidence of the evolution of new combinations when different strains are mixed?

Yours sincerely,

Joshua Lederberg
Associate Professor of Genetics